

MORTALITY EXPERIENCE OF THE
AFL-CIO UNITED BROTHERHOOD OF CARPENTERS AND
JOINERS OF AMERICA

1969-1970

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Contract No. HSM 99-72-65

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Center for Disease Control
National Institute for Occupational Safety and Health
Division of Field Studies and Clinical Investigations
Salt Lake City, Utah 84108
July 1974

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HEW Publication No. (NIOSH) 74-129

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ABSTRACT

This study of mortality experience was based upon data from membership records of the AFL-CIO United Brotherhood of Carpenters and Joiners of America, and analyzed death claims for 1969 and 1970, and non-claim deaths for 1970 and 1971. The standardized mortality ratio (SMR) was used as the prime analytical method. This study examined current mortality patterns in a large wood-exposed population, with particular attention directed to possible wood-cancer relationships. This study identified a number of areas of excessive mortality among the union members and supports the hypothesis that wood contains cancer causing agents.

The most interesting associations found in this study are the following cancer mortality patterns:

1. Excess lung cancer in acoustical tile applicators and insulators.
2. Excess gastrointestinal cancer in pile drivers.
3. Excess leukemia-lymphoma group cancers in millwrights, millmen, lumber and sawmill workers, and cabinet makers.
4. Excess lung and stomach cancer in construction workers with greater excesses seen in major urban areas.

Background

In a study of New York State Death Records⁽¹⁾, I showed that men dying of Hodgkin's disease more often had a wood-exposure occupation reported on their death certificates than did a matched control group.

To my knowledge, only one cancer has been linked to wood-exposure occupations. Acheson and co-workers⁽²⁾ have reported an excessive risk of adenocarcinoma of the nasal cavity and sinuses among woodworkers in the furniture industry in the Oxford Hospital region of England. Recently, a similar excess has been demonstrated in other parts of England⁽³⁾. Another British group trying to explain the high incidence of nasopharyngeal tumours in South Chinese have found agents in the smoke of Chinese sandalwood incense which previously have been shown to be carcinogenic for mice and rats⁽⁴⁾. Also, in a recent fortuitous observation, cedar has also been shown to be carcinogenic for mice⁽⁵⁾.

Dublin and Vane⁽⁶⁾, in an analysis of mortality of policy holders of the Metropolitan Life Insurance Company for the years 1922-1924, showed that carpenters had the highest cancer mortality of the 33

occupational groups studied, with furniture and other woodworkers fifth highest. In a similar analysis of 1937-1939 data⁽⁷⁾, furniture and woodworking factory operatives were sixth and carpenters and cabinet makers tenth in cancer mortality of 61 occupational classes with a reported mortality figure.

U.S. and English vital statistics shed little light on the issue. Both use the standardized mortality ratio as an analytic tool. In the English data⁽⁸⁾, cabinet makers, coopers and hoopmakers are the only classes of woodworkers with an SMR increase for all cancers. The lung cancer SMR is 132 in cabinet makers, while coopers have an SMR for stomach cancers of 167. Papermakers show a high stomach cancer SMR of 141. The occupational classes with the majority of woodworkers, carpenters and joiners, and sawyers and wood machinists, show no remarkable SMR deviations.

U.S. statistics⁽⁹⁾ for carpenters age 20-64 show a favorable overall mortality (SMR 84), due primarily to a favorable cardiovascular disease mortality. Cancer mortality is nearly at the all U.S. white male level, and certain cancers show a significantly elevated mortality.

To examine the current mortality patterns in a large wood-exposed population, and to shed further light on the possible wood-cancer relationship, I enlisted the cooperation of the AFL-CIO United Brotherhood of Carpenters and Joiners of America in a study of the mortality of

their members. In 1970, the union had nearly 700,000 active and retired members. Counts of membership by age, residence, trade and union local were available for use as denominators. The union also has a death benefit plan which requires submission of a death certificate before a modest death benefit is paid. For nearly 80% of all member deaths in 1969 and 1970, a death claim was filed which contained a death certificate.

Methods

A preliminary study of 1967 member deaths was done with the death claims on file at the national Union Headquarters in Washington D.C. A sample of non-claim deaths indicated that they were distributed very differently by age and cause of death (higher proportions of young men and accidental causes). I therefore decided to study 2 years of member deaths including both death claims and non-claim deaths.

The study reported here consists of the following member deaths:

<u>Year</u>	<u>death claim</u>	<u>non-claim death</u>
1969	X	
1970	X	X
1971		X

Non-claim deaths for 1969 were not available in readily accessible form, so 1971 non-claim deaths were substituted, giving 2 complete years of member deaths.

Death records available through Union Headquarters as a part of the member's death claim were abstracted. Death certificate information for those members who died without submitting death claims was obtained by writing to the states, or by personally abstracting the pertinent death information. Total ascertainment of cause of death for known deaths for the study was 97.3%.

New York City death information presented a special problem. No annual death index was available for recent years, so an alphabetical search of a punch card file for each New York City borough was performed. In all, 38 death records were not located, so about a 10% underascertainment of cause of death is seen for this one region.

Information collected for each member death was: age, occupation, duration of membership, cause of death, residence and union local number (see attached abstract form, attachment 1). Cause of death was coded by the nosologist of the Washington State Department of Social and Health Services.

Denominator data was provided for 1970 U.B.C.J.A. membership in the following tables;

1. members by age by local
2. members by age by local by state
3. members by age by local by trade

The trades covered by the union are:

Carpenters and Joiners
Millwrights
Pile Drivers, Bridge, Dock and Wharf Carpenters, Divers,
Underpinners, Timbermen and Core Drillers
Shipwrights, Boat Builders, Ship Carpenters, Joiners and
Caulkers
Cabinet Makers, Bench Hands, Stair Builders, Millmen
Wood and Resilient Floor Layers and Finishers
Carpet Layers
Shinglers
Siders
Insulators
Acoustic and Dry Wall Applicators
Shorers and House Movers
Loggers, Lumber and Sawmill Workers
Furniture Workers, Reed and Rattan Workers
Shingle Weavers
Casket and Coffin Makers
Box Makers, Railroad Carpenters and Car Builders

The standardized mortality ratio was used as the prime analytical method.

$$SMR = \frac{\text{Observed Deaths}}{\text{Expected Deaths}} \times 100$$

SMR's are underlined when observed and expected deaths are statistically, significantly different ($\chi^2 > 3.84; P < .05$).

-- This test may be inappropriate when observed values are less than 5.

U.S. age and sex specific mortality rates for 1968 (most recent year available) were used to calculate expected numbers of deaths. For those detailed causes of death with no published age, sex-specific mortality rates, rates were calculated from 1968 U.S. death and census data.

Major analyses of mortality were done for:

- A. All union members
- B. Sub-trades
- C. States, selected regions and union locals

Results and Discussion

A. General Mortality:

Table 1 shows that the overall mortality picture for the union is quite favorable due primarily to favorable cardiovascular disease mortality. Cancer mortality is similar to that of all U.S. white males, and accidental mortality is slightly higher. Excellent agreement with 1950 U.S. occupational mortality data is seen.

Figure 1 shows that over age 35, cancer makes up a large proportion of all deaths among union members. Of all union deaths, 22.1% are due to cancer as compared to 17.1% for all U.S. white males age 20+. At age 55-59, 28.4% of union deaths are due to cancer as compared to 21.3% for all U.S. white male deaths.

Table 2 shows that most non-cancer, non-accidental causes of death have low SMR's and that accidents have elevated SMR's. An examination of the detailed accident rubrics reveals that most of the accidental mortality increase is due to falls (ICD number 881, fall on or from ladders or scaffolding; 882, fall from or out of building or other structure; 884, other fall from one level to another and 916, struck by falling objects). In the younger age classes SMR's around 500 are seen. The SMR of 137.1 seen in the youngest age class of all accidents is due to these specific accidental death increases.

Table 3 shows the great spread in SMR's for various cancers.

Hodgkin's disease has an overall SMR of 90, but examination of the age specific SMR's shows that over age 60, the SMR is 177. Since Hodgkin's disease shows a bimodal age incidence curve, this would indicate that the second mode is etiologically different from the first and may be partly occupational in origin.

The mesothelioma of pleura SMR (133) is not surprising since there is considerable occupational exposure to asbestos among union members. The pilot study of 1967 deaths contained 9 deaths from this cause, which would indicate that this SMR may actually be an understatement.

The rest of the hematologic-lymphatic cancers show an interesting pattern. Acute lymphatic leukemia, acute myelogenous leukemia, reticulum-cell sarcoma and multiple myeloma all show slight elevations of SMR. Lymphosarcoma, however, shows a very low SMR (76). Considering the lymphatic leukemias as a group (204.0, 204.1, 204.2) the SMR for men under age 60 is 160 (expect 13.7 deaths, observe 22).

The age and cell type variations in SMR for these cancers suggest that our pathologic classifications and groupings may lump etiologically dissimilar diseases.

Cancer of lung, stomach, small intestine and prostate all show small elevations in SMR. Since construction workers are at risk of inhaling and ingesting carcinogens, the lung and upper gastrointestinal tract cancer might be expected to show increases. The prostatic cancer increase is harder to explain.

Cancers of the sinuses and nasal cavities show a very low SMR and therefore don't support Acheson's observations in Great Britain. However, since ICD coding fails to distinguish adenocarcinomas from other pathologic types, a real excess of adenocarcinomas might be obscured.

Figure 2 shows the pattern of SMR's for all causes of death and for cancers by age. The all causes SMR is high for men under age 25 because of accidents. It then drops to a low at age 45 and rises gradually to a peak at age 80-85. The cancer SMR starts at a low level and rises sharply between ages 25-29 and 30-35. Thereafter, the rise continues until SMR's over 100 are seen in age classes 70-74 and 75-79.

This pattern is probably due to a number of factors. The nature of the work requires initial selection of healthy active men. The active, strenuous work pattern may confer protection from cardiovascular disease during the middle years. Cancers caused by environmental agents usually have long latent periods, so most of the high cancer SMR's show up over age 65.

Since general mortality figures were used to determine expected numbers of deaths, and since there is undoubtedly some underascertainment of deaths in union members, many of the SMR's for union members will be understated.

B. Trade Breakdown:

Table 4 shows the all causes and cancer mortality by trade for union members. Sixty-nine percent of the U.B.C.J.A. members belong to construction worker locals, with no other trade type making up more than 10% of the membership.

a. Construction workers have a low all causes SMR and a slightly elevated cancer SMR. The elevated cancer SMR is due primarily to a lung cancer SMR of 118 (expect 821 deaths, observe 969) and to an increased stomach cancer SMR of 111 (expect 152, observe 170). The leukemia-lymphoma SMR (ICD numbers 200-209) is 96 with 267 deaths expected and 259 observed.

b. Acoustical tile applicators and insulators have a known exposure to asbestos fibers and have an increased expectation of mesotheliomas and respiratory cancer. The all causes SMR's for the two trades are low and the all cancer SMR's are about 200. The excess cancer SMR's are due primarily to an increased incidence of lung cancer (SMR = 373, 6 cases observed to 1.61 expected).

Nineteen death records stated asbestos or insulation worker as primary occupation. Ten of the nineteen deaths were due to cancer. Interestingly, 14 of the 19 deaths occurred in men who belonged to construction worker locals.

c. Millwright locals have a mortality pattern similar to that of construction workers with a low total mortality and a slightly increased cancer mortality. The millwrights show a lung cancer SMR of 129 (25.6 deaths expected to 33 observed). The leukemia-lymphoma group cancers have an SMR of 116 due solely to an increased SMR for multiple myeloma of 408 (.98 deaths expected to 4 observed). In fact, of the 9 leukemia-lymphoma deaths which occurred in millwright locals, 4 were multiple myeloma.

d. Pile drivers show a moderate cancer increase (SMR 137.9). Table 5 shows that the increase is due mainly to gastrointestinal cancer, with highest SMR's seen for stomach cancer and pancreatic cancer. Lung cancer shows only a slightly elevated SMR while bladder cancer has an SMR of 190, based on just 4 cases observed to 2.1 expected. All other cancers combined have an SMR of 98.1.

One large New York City pile driver local had a cancer SMR of 197 (17.2 deaths expected to 34 observed). The pattern of cancer excess in pile drivers suggests exposure to a carcinogen which is ingested or swallowed after inhalation.

e. Ship carpenters locals have an SMR pattern for total mortality and cancer like the construction worker locals. No remarkable increase in any cancer type is seen.

f. Millmen and Lumber and Sawmill workers locals have low SMR's for both all causes and cancers. However both groups have elevations in SMR for various leukemia-lymphoma group cancers. Lumber and sawmill workers locals have an SMR for causes 200-209 of 121 (22.2 deaths expected to 27 observed). This compares to a lung cancer SMR of 76 (68.5 cases expected to 52 cases observed).

Millmen also have a low lung cancer SMR of 73 (79 deaths expected to 58 observed) but have elevated SMR's for leukemia (117) and multiple myeloma (159) based on 10 leukemia deaths and 4 myeloma deaths observed.

g. Cabinet makers show low SMR's for all causes and for all cancers. However, the leukemia-lymphoma group SMR is 148 (expect 5.4 deaths, observe 8) which is consistent with the excess SMR's seen in other wood machining trades. Cabinet makers, millmen millwrights and lumber and sawmill workers, all have small leukemia, myeloma excesses suggesting that machining wood releases carcinogens which affect the hematopoietic tissues.

h. Furniture workers have unremarkable SMR's for total mortality and for cancers. The lung cancer SMR is 113 (expect 15 deaths, observe 17) but no increase is seen in SMR's for nasal cavity and paranasal sinuses, however, the number of deaths involved is small.

i. Other trades involved numbers of deaths too small for detailed cause breakdowns.

C. Geographic Breakdown:

Breakdown of mortality pattern by geographic area is really an analysis of the distribution of the various trades and locals by geographic area.

Lumber producing areas like the Northwest, West and Southeast will have a high proportion of lumber and sawmill workers locals among total membership and will therefore carry their mortality patterns. In states with small populations at risk, one or two large locals with unusual mortality patterns will cause the state to have the same pattern.

For example: Nebraska has a cancer SMR of 129.5 based on 18 cancer deaths. Five of the 18 deaths were leukemia-lymphoma group cancers, 4 were leukemias, and 3 leukemias occurred in members of the same large city local; giving the following pattern:

<u>Sub-division</u>	<u>Cause of Death</u>	<u>Deaths Expected</u>	<u>Deaths Observed</u>	<u>SMR</u>
Nebraska State	All cancers	13.9	18	129.5
Nebraska State	leukemia	.55	4	<u>727.0</u>
Local union	leukemia	.2	3	<u>1500.0</u>

Montana's SMR for cancer is only slightly elevated (108.5) but seven of 28 cancers are due to leukemia-lymphoma causes with a lymphoma SMR of 397 (1.51 expected to 6 observed deaths).

A similar pattern is seen in Washington State with a cancer SMR of 90.3 and a leukemia-lymphoma SMR of 130 (17.6 expected to 23 observed deaths). One Washington local had 4 lymphomas (SMR 1,640) and another very small local had 2 Hodgkin's disease deaths (lymphoma SMR = 1,904).

The overall state cancer SMR pattern for union members is shown in Table 6. In general, an elevation of cancer SMR in a state is due to an elevated lung cancer SMR. Figure 3 shows those states with a 25% or greater increase in lung cancer SMR (SMR > 125).

Within states, there is considerable variation in mortality patterns. Table 7 shows cancer SMR's for New York City versus the rest of the State. Lung cancer and stomach cancer SMR's are similar in both places with a considerable elevation of stomach cancer rates (SMR's 150 and 159, respectively).

Cancer of the urinary bladder and colon have elevated SMR's in New York City locals but not in the rest of the State. SMR's for the New York City locals are understated by about 10% because of difficulty in locating New York City death records. Since the exposures of workers in New York City construction locals are undoubtedly different than those of workers in small upstate locals, the observed differences are not surprising.

Actually, the geographic mortality analysis which makes most sense, epidemiologically in the available data, is analysis by local. Unfortunately, the population at risk in the average local is too small to yield enough deaths over a two-year period for a detailed mortality analysis.

Summary

This study has identified a number of problem mortality areas among U.B.C.J.A. Union members and supports the hypothesis that wood contains carcinogens. Accidental falls, especially in young members account for most of the elevated SMR's seen in young members.

The non-cancer causes of death have uniformly low SMR's. This is usually the case when general population figures are used to compute expected deaths.

The most interesting associations found in this study are cancer mortality patterns seen in the various trades covered by the union.

1. Excess lung cancer mortality in acoustical tile applicators and insulators probably related to asbestos exposure.
2. Excess gastrointestinal cancer (stomach, pancreas and colon) in pile drivers.
3. Excess leukemia-lymphoma group cancers in millwrights, millmen, lumber and sawmill workers and cabinet makers.
4. Excess lung and stomach cancer in construction workers locals with greater excesses seen in major urban areas. Cancer of the urinary bladder and colon also show excess in New York City locals.

Geographically, 20 states show a 25% or greater excess of lung cancer for grouped locals. Most excess state SMR's can be accounted for by increased lung cancer SMR's.

Recommendations

1. Analysis of as many years of U.B.C.J.A. mortality records which are readily available should be done to verify the findings of this study and to see whether the remarkable excess mortality seen in certain locals is real and not merely random variation of small numbers. Ideally, an ongoing mortality surveillance system should be set up for the union membership.

2. Since there is great variation in exposure to environmental agents within union locals, high risk locals should be examined on an individual death basis, paying particular attention to individual work exposures.

3. In those locals with a consistent excess cancer mortality, an analysis of work environments should be done to identify known and suspect carcinogenic agents, with hopes of ultimate prevention.

Acknowledgements

I would like to thank the leadership of the AFL-CIO United Brotherhood of Carpenters and Joiners of America for making this study possible with special thanks to Mr. Lowell King and Mr. Peter Terzig. Mr. Rick Ward provided the excellent denominator data tables and death listings.

Thanks to Mrs. Ruth Lindsey of the Washington State Department of Social and Health Services, Health Services Division, for coding cause of death, and to Mrs. Rita Klein for general assistance.

This study was supported by contract HSM 99-72-65 from the National Institute for Occupational Safety and Health.

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Table 1

United Brotherhood of Carpenters and Joiners of America
1969-1970 deaths
Standardized mortality ratios for selected causes of death

Cause of Death	ICD 7th Rev. Codes	Deaths		SMR	SMR U.S. Carpenters 1950*
		Expected	Observed		
All causes	all	20,454	16,443	<u>80.4</u>	84
Major cardiovascular diseases	398 - 448	11,132	8,554	<u>76.8</u>	81
Malignant neoplasms	140 - 209	3,739	3,629	97.1	97
Cerebrovascular diseases	430 - 438	1,678	1,287	<u>76.7</u>	74
Accidents	800 - 949	1,205	1,263	104.8	102

* Mortality by occupational level and cause of death, men age 20-64,
U.S. 1950 Vital Statistics Special Reports, Vol. 53 # 5, Sept., 1963.

Table 2, Page 1-*e*
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

Cause of Death	All Causes			Tuberculosis, all forms			Malignant Neoplasms, including neoplasms of lymphatic and hematopoietic tissue		
	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age									
20-24	149.1	185	<u>124.1</u>				8.5	5	58.8
25-29	207.1	174	<u>84.0</u>	0.1			17.7	11	62.1
30-34	237.0	235	99.2	0.5			24.8	22	88.7
35-39	348.3	249	<u>71.5</u>	1.1			46.4	40	86.2
40-44	628.1	438	<u>69.7</u>	2.4			97.6	89	91.2
45-49	1,159.4	785	<u>67.7</u>	5.6	4	71.4	202.2	176	87.0
50-54	1,722.4	1,284	<u>74.5</u>	7.9	1	<u>12.7</u>	347.2	324	93.3
55-59	2,364.5	1,753	<u>74.1</u>	9.5	6	63.2	515.8	499	96.7
60-64	2,887.0	2,137	<u>74.0</u>	10.9	4	<u>36.7</u>	637.6	575	<u>90.1</u>
65-69	2,671.8	2,153	<u>80.6</u>	8.9	6	67.4	571.1	575	100.7
70-74	2,634.8	2,162	<u>82.0</u>	9.0	4	44.4	508.5	504	99.1
75-79	2,448.3	2,237	<u>91.3</u>	6.8	2	29.4	412.9	457	<u>110.6</u>
80-84	1,748.3	1,636	<u>93.6</u>	4.1	2	48.8	232.4	247	106.3
85+	1,248.7	1,015	<u>81.3</u>	2.6	1	38.5	116.0	105	90.5
TOTAL	20,454.8	16,443	<u>80.4</u>	69.4	30	<u>43.2</u>	3,738.7	3,629	97.1

Table 2, Page 2-2
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	140-149				150-159				160-163			
	Malignant Neoplasms of Buccal Cavity and Pharynx		Malignant Neoplasms of Digestive organs and peritoneum		Malignant Neoplasms of respiratory system							
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	0.1			0.4	2	<u>500.0</u>	0.3					
25-29	0.2			1.7	2	117.7	0.6					
30-34	0.2			3.9	2	51.3	2.7	3	111.1			
35-39	0.9	1	111.1	8.3	5	60.2	10.5	8	76.2			
40-44	2.8	5	178.6	20.4	16	78.4	33.9	27	79.7			
45-49	6.8	7	102.9	49.1	35	<u>71.3</u>	75.4	75	99.5			
50-54	16.0	9	56.3	87.0	73	83.9	135.6	136	100.3			
55-59	24.3	10	<u>41.2</u>	135.9	117	86.1	205.4	225	109.5			
60-64	24.2	11	<u>45.5</u>	171.0	135	<u>79.0</u>	253.4	242	95.5			
65-69	18.3	18	98.4	163.8	160	97.7	207.7	217	104.5			
70-74	12.0	8	66.7	153.7	137	89.1	159.9	166	103.8			
75-79	9.9	5	50.5	135.5	142	104.8	99.7	118	118.4			
80-84	5.8	5	86.2	79.9	86	107.6	39.9	47	117.8			
85+	3.2	2	62.5	40.7	33	81.1	13.5	10	74.1			
AL	124.7	81	<u>65.0</u>	1,051.3	945	<u>89.9</u>	1,238.5	1,274	102.0			

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Table 2, Page 3-4
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	147				150				151			
	Malignant neoplasm of nasopharynx				Malignant neoplasm of esophagus				Malignant neoplasm of stomach			
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	0.1						0.1			0.1		
25-29	0.1						0.2			0.2		
30-34	0.1			0.2			0.4			0.4		
35-39	0.3	1	333.3	0.5	1	200.0	1.4	1	71.4	1.4	1	71.4
40-44	0.3			1.2			3.2	3	93.8	3.2	3	93.8
45-49	2.0			4.4	1	22.7	9.3	8	86.0	9.3	8	86.0
50-54	2.0	3	150.0	9.6	4	41.7	15.7	17	108.3	15.7	17	108.3
55-59	2.7			13.5	16	118.5	23.8	22	92.4	23.8	22	92.4
60-64	2.3	1	43.5	18.1	7	<u>38.7</u>	30.6	37	120.9	30.6	37	120.9
65-69	1.6	2	125.0	13.8	11	79.7	30.3	30	99.0	30.3	30	99.0
70-74	1.2	1	83.3	10.6	11	103.7	31.5	34	107.9	31.5	34	107.9
75-79	1.0	1	100.0	7.5	11	146.7	29.9	37	123.8	29.9	37	123.8
80-84	0.3			3.6	5	138.9	18.9	24	127.0	18.9	24	127.0
85+	0.1			2.3			8.4	5	59.5	8.4	5	59.5
TOTAL	14.1	9	63.8	85.3	67	<u>78.6</u>	203.7	218	107.0	203.7	218	107.0

Table 2, Page 4-a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	Cause of Death	152			153			154		
		Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
	Age									
	20-24				0.2			0.1		
	25-29				0.8	1	125.0	0.1		
	30-34	0.1			1.7	1	60.2	0.5		
	35-39	0.2	1	500.0	2.8	2	70.7	1.0		
	40-44	0.3			7.2	6	83.6	2.5	1	40.0
	45-49	0.6	1	166.7	14.6	6	41.0	5.4	6	111.1
	50-54	1.0	1	100.0	25.5	19	74.7	10.3	12	116.5
	55-59	1.0			40.7	30	73.6	16.8	16	95.2
	60-64	1.2	2	166.7	52.5	38	72.4	21.5	15	69.8
	65-69	1.3	2	153.9	51.4	54	105.0	20.1	12	59.7
	70-74	1.0			53.7	44	81.9	18.9	18	95.2
	75-79	0.7	1	142.9	47.3	42	88.9	15.9	16	100.6
	80-84	0.3	1	333.3	28.8	32	111.0	10.1	9	89.1
	85+	0.2			13.9	17	122.0	5.2	5	96.2
	TOTAL	7.9	9	113.9	341.1	292	85.6	128.4	110	85.7

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Table 2, Page 5 - a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

Cause of Death	Malignant neoplasm of liver				Malignant neoplasm of gallbladder				Malignant neoplasm of extrahepatic bile ducts			
	Deaths Expected	Deaths Observed	SMR		Deaths Expected	Deaths Observed	SMR		Deaths Expected	Deaths Observed	SMR	
Age												
20-24	0.1											
25-29	0.1											
30-34	0.1											
35-39	0.2				0.1				0.2			
40-44	0.6				0.2				0.2	1	500.0	
45-49	1.1	1	90.9		0.3				0.7			
50-54	3.2	2	62.5		0.8	4	500.0		1.2	1	83.3	
55-59	3.7	2	54.1		2.1	3	142.9		1.7	2	117.7	
60-64	4.9				1.9				2.1	1	47.6	
65-69	4.9	1	20.4		2.6				1.8	2	111.1	
70-74	3.9	2	51.3		3.0				2.0			
75-79	2.8	1	35.7		2.3	3	130.4		1.8	1	55.6	
80-84	1.3	2	153.9		1.2	1	83.3		1.0			
85+	0.5				0.8				0.5			
TOTAL	27.4	11	40.2		15.3	11	71.9		13.2	8	60.6	

155.0

156.0

156.1

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Table 2, Page 7-c
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	162.1				163.0				
	Malignant neoplasm of bronchus and lung				Malignant neoplasm of pleura				
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age									
20-24	0.15						0.1		
25-29	0.49								
30-34	2.87	3	104.5						
35-39	9.97	7	70.2				0.1		
40-44	28.88	26	90.0				0.2		
45-49	69.82	72	103.1				0.4		
50-54	128.02	130	101.6		1	333.3	0.3		
55-59	189.63	217	<u>114.4</u>				1.0		
60-64	232.73	233	100.1		1	125.0	0.8		
65-69	192.19	210	109.3		1	125.0	0.8		
70-74	150.24	156	103.8		2	<u>500.0</u>	0.4		
75-79	89.63	109	<u>121.6</u>		1	333.3	0.3		
80-84	35.33	45	127.4				0.1		
85+	11.26	10	88.8						
TOTAL	1,141.21	1,218	<u>106.7</u>	4.5	6	133.3			

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Table 2, Page 8-*ew*
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

Cause of Death	Malignant neoplasm of bone			Malignant neoplasm of connective and other soft tissue			Malignant melanoma of skin		
	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age									
20-24	0.4			0.3			0.4		
25-29	0.3			0.5			0.9	2	222.2
30-34	0.4	1	250.0	0.5			1.7	1	58.8
35-39	0.3	1	333.3	0.1	2	<u>2000.0</u>	3.0	5	166.7
40-44	0.6			0.7	1	142.9	4.2	3	71.4
45-49	1.1			1.7	1	58.1	5.7		
50-54	1.4	2	142.9	1.7			6.3	8	127.0
55-59	2.2	2	90.9	2.0	3	150.0	5.5	4	72.7
60-64	3.0	3	100.0	2.0	5	<u>250.0</u>	5.2	5	96.2
65-69	2.5	1	40.0	2.0	2	100.0	4.0	2	50.0
70-74	1.9	2	105.3	1.4	3	214.3	2.6	4	153.9
75-79	1.5	1	66.7	1.2			2.6	3	115.4
80-84	1.1			0.6			1.2	1	83.3
85+	0.6			0.3	1	333.3	0.7		
TOTAL	17.3	13	75.1	15.0	18	120.0	44.0	38	86.4

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Table 2, Page 9-a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	180-187				188,189				170-173, 190-199			
	Malignant Neoplasms of genital organs		Malignant Neoplasms of urinary organs		Malignant Neoplasms of other and unspecified sites		Malignant Neoplasms of all other and unspecified sites					
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR			
Age												
20-24	1.3	1	76.9				2.4					
25-29	2.8	0		0.2			4.8	3	62.5			
30-34	2.2	4	181.8	0.4	1	250.0	7.3	7	95.9			
35-39	2.5	1	40.0	1.3			11.3	12	106.2			
40-44	1.9	2	105.3	3.7	4	108.1	18.2	15	82.4			
45-49	3.2	2	62.5	9.8	9	91.8	33.2	24	72.3			
50-54	6.5	9	138.5	17.4	15	86.2	47.7	51	106.9			
55-59	14.7	10	68.0	26.3	22	83.7	62.1	71	114.3			
60-64	31.4	32	101.9	35.2	35	99.4	69.4	83	119.6			
65-69	44.4	39	87.8	33.6	34	101.2	55.0	61	110.9			
70-74	57.3	60	104.7	32.7	33	100.9	45.7	60	<u>131.3</u>			
75-79	66.2	89	<u>134.4</u>	28.6	35	122.4	33.3	33	99.1			
80-84	48.4	47	97.1	17.4	10	57.5	19.1	21	110.0			
85+	28.6	30	104.9	8.3	13	156.6	11.5	8	69.6			
TOTAL	311.4	326	104.7	214.9	211	98.2	421.0	449	106.7			

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Table 2, Page 10 - a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	185				186				188			
	Malignant neoplasm of prostate		Malignant neoplasm of testis		Malignant neoplasm of prostate		Malignant neoplasm of testis		Malignant neoplasm of bladder		Malignant neoplasm of bladder	
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24				1.1	1	90.9						
25-29				2.6								
30-34				2.3	4	173.9				0.2		
35-39	0.1			1.9	1	52.6				0.3		
40-44	0.2	1	500.0	1.6	1	62.5				0.8		
45-49	1.5	1	66.7	1.6						2.7	1	37.0
50-54	5.7	8	140.4	0.8	1	125.0				7.0	3	42.9
55-59	13.7	10	73.0	0.8						11.7	11	94.0
60-64	30.8	31	100.7	0.7	1	142.9				18.7	23	123.0
65-69	43.8	39	89.0	0.5						20.8	13	62.5
70-74	54.3	59	108.7	0.3	1	333.3				22.1	23	104.1
75-79	64.0	89	<u>139.1</u>	0.3						20.5	22	107.3
80-84	48.4	46	95.0	0.2	1	500.0				12.7	9	70.9
85+	29.1	28	96.2	0.1	1	<u>1000.0</u>				7.6	11	144.7
TOTAL	291.6	312	107.0	14.8	12	81.1				125.1	116	92.7

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Table 2, Page 11-a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	189				191				192.9			
	Malignant neoplasm of other and unspecified urinary organs		Malignant neoplasm of brain		Malignant neoplasm of other and unspecified urinary organs		Malignant neoplasm of brain		Malignant neoplasm of other and unspecified urinary organs		Malignant neoplasm of brain	
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	0.1			0.1			0.1			0.2		
25-29	0.2			1.4	1	71.4	1.4	1	71.4	0.4		
30-34	0.3	1	333.3	1.9	1	52.6	1.9	1	52.6	0.7		
35-39	1.1			3.7			3.7			1.0		
40-44	2.9	3	103.5	4.9	4	81.6	4.9	4	81.6	2.0	1	
45-49	6.2	7	112.9	8.8	7	79.6	8.8	7	79.6	2.6		
50-54	10.8	12	111.1	12.3	15	122.0	12.3	15	122.0	4.4	1	
55-59	14.6	11	75.3	15.1	18	119.2	15.1	18	119.2	5.4	3	
60-64	15.6	12	76.9	14.7	17	115.7	14.7	17	115.7	3.9	5	
65-69	13.9	20	143.9	8.3	9	108.4	8.3	9	108.4	2.3	2	
70-74	11.2	10	89.3	4.5	7	155.6	4.5	7	155.6	1.8	2	
75-79	8.1	12	148.2	2.4	1	41.7	2.4	1	41.7	0.7	1	
80-84	4.1	1	24.4	0.6	1	166.7	0.6	1	166.7	0.2	1	
85+	1.5	2	133.3	0.1			0.1					
TOTAL	90.6	91	100.4	78.8	81	102.8	78.8	81	102.8	25.6	16	

Table 2, Page 12 - a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	194.3				197.8				200.0			
	Malignant neoplasm of pituitary gland and craniopharyngeal duct		Secondary malignant neoplasm of liver, unspecified		Reticulum-cell sarcoma							
Age	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
20-24							0.3			0.3		
25-29				0.1			0.6	1	166.7	0.6		
30-34				0.2			0.6			0.6		
35-39	0.1			0.5			1.3	3	230.8	1.3		
40-44		1		1.1	1	90.9	1.6	3	187.5	1.6		
45-49	0.1	1	<u>1000.0</u>	2.6	1	38.5	2.7	3	111.1	2.7		
50-54				4.7	5	106.4	3.7	3	81.1	3.7		
55-59	0.1			6.6	13	<u>197.0</u>	3.9	5	128.2	3.9		
60-64	0.1			9.2	7	76.1	5.2	2	38.5	5.2		
65-69	0.1			8.8	8	90.9	3.4	6	176.5	3.4		
70-74				7.2	9	125.0	3.6	5	138.9	3.6		
75-79				6.4	2	31.3	2.3	1	43.5	2.3		
80-84				4.2	4	95.2	1.2	3	250.0	1.2		
85+				1.7	2	117.7	0.5			0.5		
TOTAL	0.5	2	<u>400.0</u>	53.3	52	97.6	30.9	35	113.3	30.9	35	113.3

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Table 2, Page 13 - 2
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	200.1				201				203			
	Lymphosarcoma				Hodgkin's disease				Multiple myeloma			
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	0.4			1.5								
25-29	0.6	1	166.7	3.3	1	30.3						
30-34	1.2	1	83.3	3.2	1	31.3						
35-39	1.5	2	133.3	3.7	2	54.1				0.4		
40-44	2.4	2	83.3	3.6	2	55.6				0.7	2	285.7
45-49	4.2	3	71.4	4.6	3	65.2				2.3	3	130.4
50-54	5.4	2	37.0	4.9	2	40.8				4.9	6	122.5
55-59	7.3	4	54.8	5.6	4	71.4				5.5	7	127.3
60-64	8.6	9	104.7	4.9	9	183.7				9.0	5	55.6
65-69	7.6	5	65.8	3.5	5	142.9				7.3	11	150.7
70-74	5.3	5	94.3	3.0	5	166.7				7.8	5	64.1
75-79	4.6	3	65.2	1.8	3	166.7				4.9	4	81.6
80-84	2.5	2	80.0	0.6	2	333.3				3.0	6	200.0
85+	1.0	1	100.0	0.2	1	500.0				1.0	1	100.0
TOTAL	52.6	40	76.1	44.4	40	90.1				46.8	50	106.8

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Table 2, Page 14 - a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	204-207				207.0				200-203, 208, 209			
	Leukemia				Other and unspecified leukemia, acute				Other Neoplasms of Lymphatic and hematopoietic tissues			
Age	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
20-24	1.6	1	62.5	0.4			2.3	1	43.5			
25-29	2.8	3	107.1	0.4			4.4	3	68.2			
30-34	3.1	1	32.3	0.5			5.0	4	80.0			
35-39	4.2	5	119.1	0.7			7.2	8	111.1			
40-44	6.4	9	140.6	0.8	1	125.0	10.5	11	104.8			
45-49	8.6	10	116.8	1.3			16.1	13	80.8			
50-54	12.3	9	73.2	1.3			23.9	22	92.1			
55-59	16.5	23	139.4	1.6	2	125.0	30.1	22	73.1			
60-64	19.5	9	46.2	2.0	2	100.0	32.7	28	85.6			
65-69	19.5	17	87.2	2.2	2	90.9	28.1	30	166.8			
70-74	20.9	21	100.5	2.0	3	150.0	25.5	19	74.5			
75-79	18.9	19	100.5	1.5	5	333.3	20.1	16	79.6			
80-84	11.5	14	121.7	0.8	1	125.0	10.1	17	168.3			
85+	6.3	5	79.4	0.5			3.8	4	105.3			
TAL	152.1	146	96.0	16.0	16	100.0	219.8	198	90.1			

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Table 2, Page 15 - *cc*
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	204.0				204.1				204.9			
	Lymphatic leukemia, acute		Lymphatic leukemia, chronic		Lymphatic leukemia, acute		Lymphatic leukemia, chronic		Lymphatic leukemia, acute		Lymphatic leukemia, chronic	
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	0.5	1	200.0				0.1			0.1		
25-29	0.4									0.1		
30-34	0.5									0.1		
35-39	0.5	1	200.0	0.1						0.1		
40-44	0.5	2	<u>400.0</u>	0.3	1	333.3				0.2	2	<u>1000.0</u>
45-49	0.6	1	166.7	0.8	2	250.0				0.5		
50-54	0.7			1.5	2	133.3				0.7		
55-59	1.1	4	<u>363.6</u>	3.4	2	58.8				1.0	4	<u>400.0</u>
60-64	1.2	1	83.3	3.9	1	25.6				1.8		
65-69	1.5			4.6	5	108.7				1.8	1	55.6
70-74	1.3	1	76.9	4.6	4	87.0				1.8	1	55.6
75-79	1.0			4.2	3	71.4				1.8	1	55.6
80-84	0.9	2	222.2	2.4	3	125.0				1.0	2	200.0
85+	0.5			1.9	2	105.3				0.6		
TOTAL	11.2	13	116.1	27.7	25	90.3				11.5	11	95.7

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Table 2, Page 16 - a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	205.0				205.1				205.9			
	Myeloid leukemia, acute		Myeloid leukemia, chronic		Myeloid leukemia, acute		Myeloid leukemia, chronic		Myeloid leukemia, acute		Myeloid leukemia, unspecified	
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	0.5			0.2								
25-29	1.0	2	200.0	0.4	1	250.0						
30-34	1.4	1	71.4	0.5						0.2		
35-39	1.3	2	153.9	0.6	1	166.7				0.2		
40-44	2.0	2	100.0	1.0						0.3	1	333.3
45-49	3.2	5	156.3	1.4	1	71.4				0.4		
50-54	3.2	4	125.0	1.6	3	187.5				0.8		
55-59	4.4	5	113.6	1.7						1.0		
60-64	4.9	3	61.2	2.1						1.2	1	83.3
65-69	4.8			2.2						1.3	4	<u>307.7</u>
70-74	4.1	6	146.3	2.1	1	47.6				1.1		
75-79	3.1	5	161.3	1.9						1.3	2	153.9
80-84	1.7	2	117.7	1.2	2	166.7				0.8		
85+	0.8	1	125.0	0.5						0.4		
TOTAL	36.4	38	104.4	17.4	9	<u>51.7</u>				9.0	8	88.9

Table 2, Page 17-*cc*
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	206.0				206.1				206.9			
	Monocytic leukemia, acute				Monocytic leukemia, chronic				Monocytic leukemia, unspecified			
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	0.2											
25-29	0.1											
30-34	0.2									0.1		
35-39	0.3	1	333.3							0.1		
40-44	0.7											
45-49	0.7	1	142.9							0.3		
50-54	1.0									0.4		
55-59	1.8	3	166.7		1					0.1		
60-64	1.3									0.3	1	333.3
65-69	1.3			0.1						0.5	2	<u>400.0</u>
70-74	1.2	1	83.3		1					0.7	1	142.9
75-79	0.8									0.4		
80-84	0.6									0.2		
85+	0.4									0.1		
TOTAL	10.6	6	56.6	0.1	2	<u>2000.0</u>	3.2	4	125.0			

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Table 2, Page 18 - *a*
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	400, 401, 403				402				404			
	Hypertension		Hypertensive Heart Disease		Hypertensive Heart Disease		Hypertensive heart and renal disease					
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR			
Age												
20-24	0.1			0.1								
25-29	0.1			0.2								
30-34	0.5	1	200.0	0.1								
35-39	0.8	2	250.0	0.5			0.1					
40-44	1.3	1	76.9	1.3	1	76.9	0.4					
45-49	2.9	2	69.0	3.0	2	66.7	1.2	1	83.3			
50-54	4.2	1	23.8	4.0	2	50.0	2.0	1	50.0			
55-59	4.8	4	83.3	7.3	4	54.8	3.1	2	64.5			
60-64	6.5	6	92.3	8.9	9	101.1	4.8	2	41.7			
65-69	7.8	6	76.9	8.8	7	79.6	6.1	4	65.6			
70-74	10.1	8	79.2	8.8	4	45.5	7.5	7	93.3			
75-79	11.0	10	90.9	8.4	5	59.5	9.5	6	63.2			
80-84	10.3	8	77.7	6.3	6	95.2	10.9	2	18.4			
85+	8.4	7	83.3	4.7	1	21.3	9.8	3	30.6			
TOTAL	68.8	56	81.4	62.4	41	65.7	55.4	28	50.5			

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Table 2, Page 19 - a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	390-448				390-398, 402, 404, 410-429				410-413			
	Major Cardiovascular Disease				Disease of Heart				Ischemic Heart Disease			
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	4.1	6	146.3	2.6	3	115.4	0.8	2	250.0			
25-29	12.6	12	95.2	8.4	9	107.1	4.0	5	125.0			
30-34	30.7	18	<u>58.6</u>	23.8	12	<u>50.4</u>	17.1	7	<u>40.9</u>			
35-39	90.0	54	<u>60.0</u>	75.9	46	<u>60.6</u>	63.6	42	<u>66.0</u>			
40-44	228.4	143	<u>62.6</u>	201.4	121	<u>60.1</u>	176.8	110	<u>62.2</u>			
45-49	519.8	324	<u>62.3</u>	462.2	283	<u>61.2</u>	417.0	248	<u>59.5</u>			
50-54	845.2	590	<u>69.8</u>	750.2	522	<u>69.6</u>	686.4	485	<u>70.7</u>			
55-59	1,214.4	815	<u>67.1</u>	1,061.2	714	<u>67.3</u>	976.5	659	<u>67.5</u>			
60-64	1,553.0	1,103	<u>71.0</u>	1,309.9	931	<u>71.1</u>	1,213.8	864	<u>71.2</u>			
65-69	1,497.1	1,145	<u>76.5</u>	1,211.2	932	<u>77.0</u>	1,131.6	858	<u>75.8</u>			
70-74	1,566.8	1,211	<u>77.3</u>	1,204.5	947	<u>78.6</u>	1,127.0	884	<u>78.4</u>			
75-79	1,521.6	1,329	<u>87.3</u>	1,115.1	995	<u>89.2</u>	1,044.1	931	<u>89.2</u>			
80-84	1,164.1	1,080	<u>92.8</u>	810.4	789	97.4	753.8	747	99.1			
85+	884.5	714	<u>80.7</u>	591.8	489	<u>82.6</u>	546.1	460	<u>84.2</u>			
TOTAL	11,132.3	8,544	<u>76.8</u>	8,828.6	6,793	<u>76.9</u>	8,158.6	6,302	<u>77.2</u>			

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Table 2, Page 20 - *o*
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	410				411				412			
	Acute myocardial infarction				Other acute and subacute forms of ischemic heart disease				Chronic ischemic heart disease			
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	0.6	1	166.7				0.2	1	500.0			
25-29	2.8	5	178.6	0.1			1.1					
30-34	13.1	5	<u>38.2</u>	0.4			3.7	2	54.1			
35-39	49.3	29	<u>58.8</u>	1.2			13.1	13	99.2			
40-44	138.6	80	<u>57.7</u>	1.9	2	105.3	36.2	28	77.4			
45-49	324.5	189	<u>58.2</u>	3.9	5	128.2	88.4	54	<u>61.1</u>			
50-54	520.3	364	<u>70.0</u>	6.1	8	131.2	159.9	113	<u>70.7</u>			
55-59	717.0	493	<u>68.8</u>	9.1	6	65.9	250.0	158	<u>63.2</u>			
60-64	852.0	633	<u>74.3</u>	9.3	8	86.0	352.0	223	<u>63.4</u>			
65-69	756.3	603	<u>79.7</u>	7.2	3	41.7	367.8	251	<u>68.2</u>			
70-74	693.8	550	<u>79.4</u>	7.2	6	83.3	426.6	327	<u>76.7</u>			
75-79	574.7	546	95.0	6.0	3	50.0	463.2	382	<u>82.5</u>			
80-84	353.7	335	94.7	4.1	4	97.6	395.8	408	103.1			
85+	205.9	168	81.6	2.9	1	34.5	337.2	291	<u>86.3</u>			
TAL	5,201.6	4,001	<u>76.9</u>	59.4	46	77.4	2,895.2	2,251	<u>77.8</u>			

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Table 2, Page 21 - a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	420-423, 425-427, 429				430-438				430, 432, 435-438			
	All other forms of heart disease		Cerebrovascular disease		Cerebrovascular disease		All other Cerebrovascular disease					
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	1.0	1	100.0	1.0	3	300.0	0.6	2	333.3			
25-29	2.2	1	45.5	3.5	2	57.1	2.5	1	40.0			
30-34	3.3	2	60.6	5.3	2	37.7	3.5	1	28.6			
35-39	5.9	3	50.9	11.0	4	36.4	7.2	2	27.8			
40-44	11.5	3	26.1	20.7	14	67.6	12.9	9	69.8			
45-49	20.8	18	86.5	43.2	29	67.1	23.2	22	94.8			
50-54	29.4	20	68.0	72.0	51	70.8	34.7	26	74.9			
55-59	39.2	28	71.4	111.7	74	66.3	52.8	37	70.1			
60-64	43.6	31	71.1	172.2	128	74.3	77.6	60	77.3			
65-69	37.4	37	98.9	204.7	149	72.8	95.7	69	72.1			
70-74	39.1	31	79.3	266.0	198	74.4	125.8	113	89.8			
75-79	35.0	32	91.4	303.3	252	83.1	150.6	127	84.3			
80-84	27.0	23	85.2	260.0	216	83.1	133.2	105	78.8			
85+	20.8	21	101.0	202.6	165	81.4	106.6	75	70.4			
TOTAL	316.2	251	79.4	1,677.6	1,287	76.7	826.9	649	78.5			

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Table 2, Page 22 - *cc*
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	Cerebral hemorrhage				Cerebral Thrombosis				Cerebral embolism				
	Age	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
	431												
	434												
20-24	0.4	1	250.0	0.1									
25-29	1.0	1	100.0	0.1									
30-34	1.5	1	66.7	0.2									
35-39	3.3	2	60.6	0.5									
40-44	6.4	4	62.5	1.5	1	66.7							
45-49	15.8	6	<u>38.0</u>	4.1	1	24.4					0.2		
50-54	26.3	18	68.4	10.6	7	66.0					0.5		
55-59	37.3	21	<u>56.3</u>	20.8	16	76.9					0.8		
60-64	53.1	34	<u>64.0</u>	40.2	34	84.6					1.3		
65-69	51.1	28	<u>54.8</u>	56.6	52	91.9					1.3		
70-74	57.6	32	<u>55.6</u>	81.2	53	<u>65.3</u>					1.4		
75-79	56.4	46	81.6	95.1	79	83.1					1.1		
80-84	42.4	35	82.6	83.4	76	91.1					0.9		
85+	27.6	23	83.3	67.7	66	97.5					0.7	1	142.9
TOTAL	380.2	252	<u>66.3</u>	462.1	385	<u>83.3</u>					8.2	1	<u>12.2</u>

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Table 2, Page 23-cw
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	470-474, 480-486				470-474				480-486			
	Influenza and Pneumonia		Influenza		Influenza		Pneumonia		Influenza		Pneumonia	
Cause of death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	2.2			0.1			2.1					
25-29	3.4			0.2			3.1					
30-34	4.2	4	95.2	0.3	1	333.3	4.0	3	75.0			
35-39	6.7	3	44.8	0.6			6.0	3	50.0			
40-44	13.8	1	<u>7.3</u>	1.0			12.7	1	<u>7.9</u>			
45-49	25.6	12	<u>46.9</u>	2.5	1	40.0	23.0	11	<u>47.8</u>			
50-54	36.5	16	<u>43.8</u>	4.2	3	71.4	32.3	13	<u>40.3</u>			
55-59	51.5	29	<u>56.3</u>	6.0	5	83.3	45.5	24	<u>52.8</u>			
60-64	64.3	31	<u>48.2</u>	7.6	4	52.6	56.6	27	<u>47.7</u>			
65-69	65.7	36	<u>54.8</u>	7.7	4	52.0	58.0	32	<u>55.2</u>			
70-74	80.7	51	<u>63.2</u>	7.9	7	88.6	72.7	44	<u>60.5</u>			
75-79	90.6	71	<u>78.4</u>	7.1	3	42.3	83.5	68	81.4			
80-84	75.8	69	91.0	5.4	2	37.0	70.4	67	95.2			
85+	72.8	44	<u>60.4</u>	5.4	2	37.0	67.4	42	<u>62.3</u>			
TOTAL	593.8	367	<u>61.8</u>	56.0	32	<u>57.1</u>	537.3	335	<u>62.4</u>			

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Table 2, Page 24 - C
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	440				441-448				466			
	Arteriosclerosis		Other diseases of arteries, arterioles and capillaries		Acute Bronchitis and Bronchiolitis							
Cause of death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
20-24				0.4						0.1		
25-29				0.6	1	166.7				0.1		
30-34	0.1			1.0	3	<u>300.0</u>				0.1		
35-39	0.1			2.1	2	95.2						
40-44	0.4	1	250.0	4.4	6	136.4				0.3	1	333.3
45-49	1.0	2	200.0	10.3	8	77.7				0.7		
50-54	2.6	4	153.8	16.0	12	75.0				0.5		
55-59	6.5	7	107.7	30.1	16	<u>53.2</u>				0.9	2	222.2
60-64	12.9	7	54.3	51.6	31	<u>60.1</u>				1.0		
65-69	19.3	19	98.5	54.0	39	<u>72.2</u>				0.9		
70-74	30.9	26	84.1	55.3	32	<u>57.9</u>				1.1		
75-79	45.1	36	79.8	47.1	36	76.4				0.7		
80-84	53.8	43	79.9	29.6	24	81.1				0.5		
85+	64.5	43	<u>66.7</u>	17.1	10	58.5				0.5		
AL	237.2	188	<u>79.3</u>	319.6	220	<u>68.8</u>				7.3	3	41.1

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Table 2, Page 25 - *es*
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	490-493				490, 491				492			
	Bronchitis, Emphysema and Asthma		Chronic and Unqualified Bronchitis		Emphysema		Emphysema					
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	0.3			0.1			0.1			0.1		
25-29	0.6	1	166.7	0.1	1	1000.0	0.1			0.1		
30-34	1.0	1	100.0	0.1			0.5			0.5		
35-39	1.7			0.4			0.9			0.9		
40-44	6.1	3	49.2	1.3			3.7	3	81.1	3.7	3	81.1
45-49	13.6	6	44.1	2.5			9.8	6	61.2	9.8	6	61.2
50-54	29.9	8	26.8	5.6	2	35.7	22.7	4	17.6	22.7	4	17.6
55-59	58.5	40	68.4	8.7	8	92.0	47.6	28	58.8	47.6	28	58.8
60-64	92.9	59	63.5	15.2	9	59.2	74.3	47	63.3	74.3	47	63.3
65-69	96.9	77	79.5	15.9	10	62.9	78.5	65	82.8	78.5	65	82.8
70-74	97.4	83	85.2	15.7	8	51.0	79.8	73	91.5	79.8	73	91.5
75-79	76.3	76	99.6	13.2	10	75.8	61.2	65	106.2	61.2	65	106.2
80-84	39.7	37	93.2	7.6	2	26.3	31.1	34	109.3	31.1	34	109.3
85+	16.8	21	125.0	4.1	4	97.6	12.4	17	137.1	12.4	17	137.1
TOTAL	531.7	412	77.5	90.5	54	59.7	422.7	342	80.9	422.7	342	80.9

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Table 2, Page 26 - a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	493		531-533		571	
	Asthma		Peptic Ulcer		Cirrhosis of Liver	
Cause of Death	Deaths Expected	Deaths Observed	Deaths Expected	Deaths Observed	Deaths Expected	Deaths Observed
Age	SMR	SMR	SMR	SMR	SMR	SMR
20-24	0.2		0.2	1	0.3	
25-29	0.4		0.6		1.8	
30-34	0.3	1	1.2		6.8	3
35-39	0.4		2.0		16.3	6
40-44	1.0		4.4	2	37.6	13
45-49	1.2		8.0	6	65.5	30
50-54	1.6	2	12.4	8	80.9	36
55-59	2.3	4	17.2	8	86.8	42
60-64	3.2	3	20.5	15	76.2	38
65-69	2.5	2	19.5	13	44.2	21
70-74	1.9	2	16.0	12	24.7	19
75-79	1.9	1	15.8	6	13.2	14
80-84	1.0	1	10.6	6	5.8	7
85+	0.4		5.5	2	2.1	5
TOTAL	18.3	16	133.9	79	462.2	234
		87.4		59.0		50.6

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Table 2, Page 27 - *2*
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	574-575				580-584				590			
	Cholelithiasis, cholecystitis and cholangitis				Nephritis and nephrosis				Infections of kidney			
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24				0.7	1	142.9				0.1		
25-29				2.0						0.1		
30-34	0.1			1.8	1	55.6				0.3		
35-39	0.3			3.0						0.8		
40-44	0.4			3.6	2	55.6				1.0		
45-49	1.0			5.9	1	17.0				1.7	1	58.8
50-54	1.7	2	117.7	7.6	4	52.6				3.1	1	32.3
55-59	3.1	1	32.3	10.9	8	73.4				5.5	4	72.7
60-64	4.1	1	24.4	11.6	13	112.1				6.2	1	16.1
65-69	4.7	5	106.4	9.1	5	55.0				7.9	4	50.6
70-74	6.3	9	142.9	8.9	5	56.2				9.9	8	80.8
75-79	7.3	11	150.7	9.4	8	85.1				11.9	12	100.8
80-84	5.0	6	120.0	7.3	3	41.1				10.3	10	97.1
85+	3.2	2	62.5	4.8	6	125.0				8.9	5	56.2
TOTAL	37.2	37	99.5	86.6	57	65.8				67.7	46	68.0

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Table 2, Page 28 - *a*
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	600				E800-E949				E810-E823			
	Hyperplasia of prostate		Accidents		Motor Vehicle Accidents		Hyperplasia of prostate		Accidents		Motor Vehicle Accidents	
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24				94.8	130	<u>137.1</u>	68.6	81	118.1			
25-29				106.2	104	97.9	68.2	62	90.4			
30-34				93.8	128	<u>136.5</u>	52.3	52	99.4			
35-39				91.4	87	95.2	48.7	40	82.1			
40-44				104.2	106	101.7	50.3	36	<u>71.6</u>			
45-49	0.2			121.8	135	110.8	56.4	50	88.7			
50-54	0.3			120.8	130	107.6	55.7	55	98.7			
55-59	0.9			115.9	123	106.1	49.3	54	109.5			
60-64	2.0	2	100.0	101.8	92	90.4	40.7	35	86.0			
65-69	4.0	1	25.0	72.1	67	92.9	30.0	23	76.7			
70-74	6.2	3	48.4	57.9	56	96.7	22.8	16	70.2			
75-79	8.3	5	60.2	52.4	46	87.8	18.2	18	98.9			
80-84	8.7	3	34.5	40.2	39	97.0	10.4	11	105.8			
85+	9.0	5	55.6	32.0	20	<u>62.5</u>	3.9	5	128.2			
TOTAL	39.6	19	<u>48.0</u>	1,205.3	1,263	104.8	575.5	538	93.5			

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Table 2, Page 29 - c
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	E800-E807, E825-E949				E950-E959				E960-E978			
	All other accidents				Suicide				Homicide			
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	26.2	49	<u>187.0</u>	12.5	14	112.0	8.0	6	75.0			
25-29	38.0	42	110.5	22.1	16	72.4	14.4	17	118.1			
30-34	41.5	76	<u>183.1</u>	23.4	24	102.6	14.1	18	127.7			
35-39	42.6	47	110.3	26.8	29	108.2	14.2	8	56.3			
40-44	53.9	70	<u>129.9</u>	35.8	29	81.0	14.1	8	56.7			
45-49	65.4	85	<u>130.0</u>	47.8	37	77.4	13.0	8	61.5			
50-54	65.2	75	115.0	46.0	43	93.5	9.8	8	81.6			
55-59	66.4	69	103.9	44.0	34	77.3	10.0	8	80.0			
60-64	61.0	57	93.4	39.1	27	69.1	6.5	2	30.8			
65-69	42.0	44	104.8	24.3	17	70.0	3.8	3	79.0			
70-74	35.1	40	114.0	16.3	8	<u>49.1</u>	1.9	2	105.3			
75-79	34.2	28	81.9	12.7	10	78.7	1.1	1	90.9			
80-84	29.8	28	94.0	7.3	10	137.0	0.6	1	166.7			
85+	28.0	15	<u>53.6</u>	3.1	1	32.3	0.2					
TOTAL	629.3	725	<u>115.2</u>	361.2	299	<u>82.8</u>	111.7	90	<u>80.6</u>			

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Table 2, Page 30 - 2
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	E881				E882				E884						
	Fall on or from ladders or scaffolding		Fall from or out of building or other structure		Deaths Expected		Deaths Observed		Deaths Expected		Deaths Observed		Other fall from one level to another		
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age															
20-24	0.15	3	<u>2000.0</u>	0.54	1	185.2	0.50			0.50	4	<u>800.0</u>			
25-29	0.46	1	217.4	0.84	2	238.1	0.48			0.48	1	208.3			
30-34	0.48	3	<u>625.0</u>	0.89	3	<u>337.1</u>	0.88			0.88	2	227.3			
35-39	0.51	1	196.1	0.94	1	106.4	0.89			0.89	5	<u>561.8</u>			
40-44	0.92	5	<u>543.5</u>	1.22	5	<u>409.8</u>	1.52			1.52	1	65.8			
45-49	1.23	5	<u>406.5</u>	1.23	5	<u>406.5</u>	1.38			1.38	2	144.9			
50-54	1.41	4	<u>283.7</u>	1.41	8	<u>567.4</u>	1.61			1.61	4	248.5			
55-59	1.99	4	201.0	1.55	3	193.6	1.47			1.47	2	136.1			
60-64	1.95	8	<u>410.3</u>	1.68			1.62			1.62	1	61.7			
65-69	1.04	1	96.2	1.01	1	99.0	0.93			0.93					
70-74	0.95			0.70	2	285.7	1.40			1.40	1	71.4			
75-79	0.64			0.56	2	357.1	1.32			1.32	2	151.4			
80-84	0.35			0.40	1	250.0	0.23			0.23					
85+	0.12			0.23											
TOTAL	12.20	35	<u>286.9</u>	13.23	34	<u>257.0</u>	14.23	25	<u>175.7</u>						

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Table 2, Page 31 - C
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	E887				E916				E917			
	Other and unspecified fall				Struck accidentally by falling object				Striking against or struck accidentally by objects			
Cause of Death	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
Age												
20-24	0.35	2	<u>571.4</u>	1.16	6	<u>517.2</u>	0.60	1	166.7			
25-29	0.65	2	307.7	1.86	2	107.5	1.13	1	88.5			
30-34	1.10	1	90.9	2.74	1	36.5	0.94	2	212.8			
35-39	1.50	4	<u>266.7</u>	1.95	1	51.3	0.99	3	<u>303.0</u>			
40-44	2.94	2	68.0	3.36	5	148.8	1.47	1	68.0			
45-49	4.63	10	<u>216.0</u>	3.24	5	154.3	1.94	2	103.1			
50-54	5.50	4	72.7	3.24	2	61.7	2.10	6	<u>285.7</u>			
55-59	7.01	10	142.7	2.56	2	78.1	2.21					
60-64	7.91	4	50.6	1.98	3	151.5	1.62	2	123.5			
65-69	7.96	5	62.8	0.87			0.82					
70-74	8.79	9	102.4	0.40	2	500.0	0.48					
75-79	12.30	12	97.6	0.25			0.58					
80-84	14.90	13	87.3	0.10			0.19	1	526.3			
85+	18.08	8	<u>44.3</u>	0.03			0.19					
TOTAL	93.62	86	91.9	23.74	29	122.2	15.26	19	124.5			

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Table 2, Page 32 - a
Mortality by Selected Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

ICD number	E918		
	Caught accidentally in or between objects		
Age	Deaths Expected	Deaths Observed	SMR
20-24	0.47	2	<u>425.5</u>
25-29	0.70	1	142.9
30-34	1.10	1	90.9
35-39	0.75		
40-44	1.22	2	163.9
45-49	1.52	3	197.4
50-54	1.47	1	68.0
55-59	1.70		
60-64	0.87		
65-69	0.48		
70-74	0.15		
75-79	0.18		
80-84	0.04		
85+	0.01		
TOTAL	10.66	10	93.8

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Table 3 - 1-B.

SMR's for Selected Cancer Causes of Death
AFL-CIO United Brotherhood of Carpenters and Joiners of America
1969-1970, all member deaths

<u>SMR</u>	<u>Cause of Death</u>
<u>177</u>	Hodgkin's disease, age 60+
<u>160</u>	Lymphatic Leukemia < age 60 (204.0, 204.1, 204.9)
<u>133</u>	Mesothelioma of pleura
<u>120</u>	Connective tissue cancer
<u>116</u>	Acute lymphatic leukemia
<u>113</u>	Reticulum-cell sarcoma
<u>113</u>	Cancer of small intestine
<u>107</u>	Cancer of stomach
<u>107</u>	Cancer of prostate
<u>106</u>	Cancer of lung
<u>106</u>	Multiple myeloma
<u>104</u>	Acute myeloid leukemia
<u>102</u>	Cancer of brain
<u>96</u>	All leukemia
<u>93</u>	Cancer of pancreas
<u>90</u>	All Hodgkin's disease
<u>89</u>	Cancer of digestive organs and peritoneum
<u>86</u>	Cancer of skin
<u>85</u>	Cancer of rectum
<u>81</u>	Cancer of testis
<u>78</u>	Cancer of esophagus
<u>76</u>	Lymphosarcoma
<u>71</u>	Cancer of gallbladder
<u>65</u>	Cancer of buccal cavity
<u>62</u>	Cancer of nasopharynx
<u>60</u>	Cancer of bile ducts

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Table 4 - 1^b

Mortality by Trade

AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

Trade	Deaths due to all causes			Deaths due to Cancer (ICD number 140-209)		
	Expected	Observed	SMR	Expected	Observed	SMR
Construction workers	15,433.3	12,952	<u>83.9</u>	2,760.3	2,867	<u>103.9</u>
Acoustical applicators	5.7	4	70.1	0.9	2	222.2
Floor layers	152.5	113	<u>74.1</u>	27.6	30	108.7
Floor surfacers	12.6	10	79.4	2.4	2	83.3
Insulators	19.4	10	<u>51.5</u>	3.5	7	200.0
Maintenance	14.2	11	77.5	2.7	4	148.2
Residential	13.4	18	134.3	2.3	2	87.0
Millwright	399.7	313	<u>78.3</u>	77.5	81	104.5
Pile drivers	335.7	357	106.3	60.3	83	<u>137.7</u>
Marine carpenters	22.7	14	61.7	3.9	5	128.2
Boat builders	30.3	24	79.2	5.6	4	71.4
Navy Yard	17.7	8	<u>45.2</u>	3.4	1	29.4
Ship carpenters	251.6	199	<u>79.1</u>	45.4	45	99.1
Millmen	1,146.8	868	<u>75.7</u>	206.0	170	<u>82.5</u>
Boxmakers	76.4	55	<u>72.0</u>	14.0	14	100.0
Cabinetmakers	300.8	216	<u>71.8</u>	53.7	37	<u>68.9</u>
Lumber handlers	1.2	2	166.7	0.2	1	500.0
Stair builders	16.0	12	75.0	2.8	1	35.7
Lumber sawmill workers	1,153.2	792	<u>68.7</u>	215.1	173	<u>80.4</u>
Plywood	113.6	64	<u>56.3</u>	21.3	13	<u>61.1</u>
Shingle weavers	38.4	43	112.0	6.5	4	61.5
Furniture	252.1	171	<u>67.8</u>	47.3	43	90.9
Miscellaneous	171.8	101	<u>58.8</u>	32.1	23	71.7
Aircraft	69.9	26	<u>37.2</u>	13.9	6	<u>43.2</u>
Pencil	2.7	3	111.1	0.5	1	200.0
Piano	15.3	7	<u>45.8</u>	3.0	2	66.7
Prefabricated	10.1	4	<u>39.6</u>	1.8	1	55.6

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Table 5 - 1-B

Pile Drivers Locals Mortality
AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

<u>Cause of Death</u>	<u>ICD</u>	<u>Deaths Expected</u>	<u>Deaths Observed</u>	<u>SMR</u>
All causes	all	335.7	357	106.3
All cancers	140-209	60.2	83	<u>137.9</u>
Gastrointestinal cancer	150-159	17.3	29	<u>167.6</u>
Stomach	151	3.4	9	<u>264.7</u>
Pancreas	157	3.5	7	200.0
Large intestine	153	5.6	8	143.8
Bladder cancer	188	2.1	4	190.5
Lung cancer	162.1	19.4	21	108.2
All other cancers		21.4	21	98.1

Table 6, Page 1-*C*
Mortality by State

AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

State	Deaths due to all causes			Deaths due to Cancer (ICD number 140-209)			Deaths due to Lung Cancer (ICD number 162.1)		
	Expected	Observed	SMR	Expected	Observed	SMR	Expected	Observed	SMR
Alabama	163.2	146	89.5	30.7	37	120.5	9.4	17	180.9
Arizona	162.0	86	53.1	30.3	17	56.1	9.6	8	83.3
Arkansas	94.5	93	98.4	17.8	33	185.4	5.5	10	181.8
California	3,304.7	2,556	77.3	598.2	556	93.0	181.2	189	104.3
Colorado	174.6	127	72.7	31.7	22	69.4	9.6	7	72.9
Connecticut	265.8	211	79.4	46.8	51	109.0	13.5	22	163.0
Delaware	35.6	42	118.0	6.7	8	119.4	2.1	3	142.9
District of Columbia	160.9	181	112.5	28.5	39	136.8	8.3	14	168.7
Florida	569.4	448	78.7	103.9	128	123.2	32.1	49	152.7
Georgia	170.6	147	86.2	32.2	23	71.4	10.0	10	100.0
Hawaii	86.8	24	27.7	16.9	4	23.7	5.8	0	
Idaho	84.7	42	49.6	14.9	13	87.3	4.7	2	42.6
Illinois	1,554.0	1,444	92.9	267.5	300	112.2	76.8	107	139.3
Indiana	449.9	393	87.4	81.2	84	103.5	24.8	32	129.6
Iowa	176.1	157	89.2	30.6	29	94.8	8.9	9	101.1
Kansas	127.6	116	90.9	23.0	26	113.0	6.9	10	144.9
Kentucky	193.2	159	82.3	35.8	35	97.8	11.2	9	80.4
Louisiana	264.0	223	84.5	49.4	47	95.1	15.8	21	132.9
Maine	45.6	44	96.5	8.6	8	93.0	2.6	4	153.8
Maryland	113.7	104	91.5	20.8	21	101.0	6.2	4	64.5
Massachusetts	515.4	460	89.3	87.9	103	117.2	24.8	31	125.0
Michigan	686.5	545	79.4	121.9	121	99.3	36.2	41	113.3
Minnesota	483.3	356	73.7	84.5	81	95.9	24.5	25	102.0
Mississippi	116.7	107	91.7	21.8	24	110.1	6.9	8	115.9
Missouri	559.3	446	79.7	101.0	91	90.1	30.4	40	131.6
Montana	139.9	104	74.3	25.8	28	108.5	8.0	7	87.5

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Table 6, Page 2-*c*

Mortality by State

AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970

State	Deaths due to all causes			Deaths due to Cancer (ICD number 140-209)			Deaths due to Lung Cancer (ICD number 162.1)		
	Expected	Observed	SMR	Expected	Observed	SMR	Expected	Observed	SMR
Nebraska	76.7	60	78.2	13.9	18	129.5	4.2	6	142.9
Nevada	77.2	64	82.9	14.4	15	104.2	4.5	11	244.4
New Hampshire	36.3	41	113.0	6.5	10	153.9	2.0	3	150.0
New Jersey	525.1	420	80.0	91.0	88	96.7	25.7	21	81.7
New Mexico	63.4	39	61.5	11.7	11	94.0	3.8	4	105.3
New York	2,013.7	1,679	83.4	353.7	410	115.9	102.0	122	119.6
North Carolina	42.7	33	77.3	7.8	5	64.1	2.5	3	120.0
North Dakota	22.7	17	74.9	3.9	4	102.6	1.2	2	166.7
Ohio	810.8	697	86.0	143.3	159	111.0	42.4	63	148.6
Oklahoma	137.5	108	78.6	25.0	23	92.0	7.5	8	106.7
Oregon	702.2	536	76.3	129.4	137	105.9	40.1	41	102.2
Pennsylvania	839.7	706	84.1	151.2	132	87.3	45.3	36	79.5
Rhode Island	110.9	81	73.0	20.0	19	95.0	5.8	4	69.0
South Carolina	30.6	23	75.2	5.8	2	34.5	1.7	2	117.7
South Dakota	21.4	17	79.4	3.7	3	81.1	1.1	1	90.9
Tennessee	264.9	214	80.8	49.3	36	73.0	15.3	9	58.8
Texas	594.1	534	89.9	109.3	131	119.9	33.4	57	170.7
Utah	70.5	66	93.6	13.1	13	99.2	3.9	4	102.6
Vermont	16.4	15	91.5	3.0	2	66.7	0.9	0	
Virginia	134.5	139	103.4	25.5	34	133.3	8.1	15	185.2
Washington	1,024.7	879	85.8	186.0	168	90.3	55.7	52	93.4
West Virginia	107.7	79	73.4	19.9	21	105.5	6.1	5	82.0
Wisconsin	552.8	443	80.1	98.2	97	98.8	29.1	26	89.4
Wyoming	25.5	28	109.8	4.5	7	155.6	1.2	3	250.0

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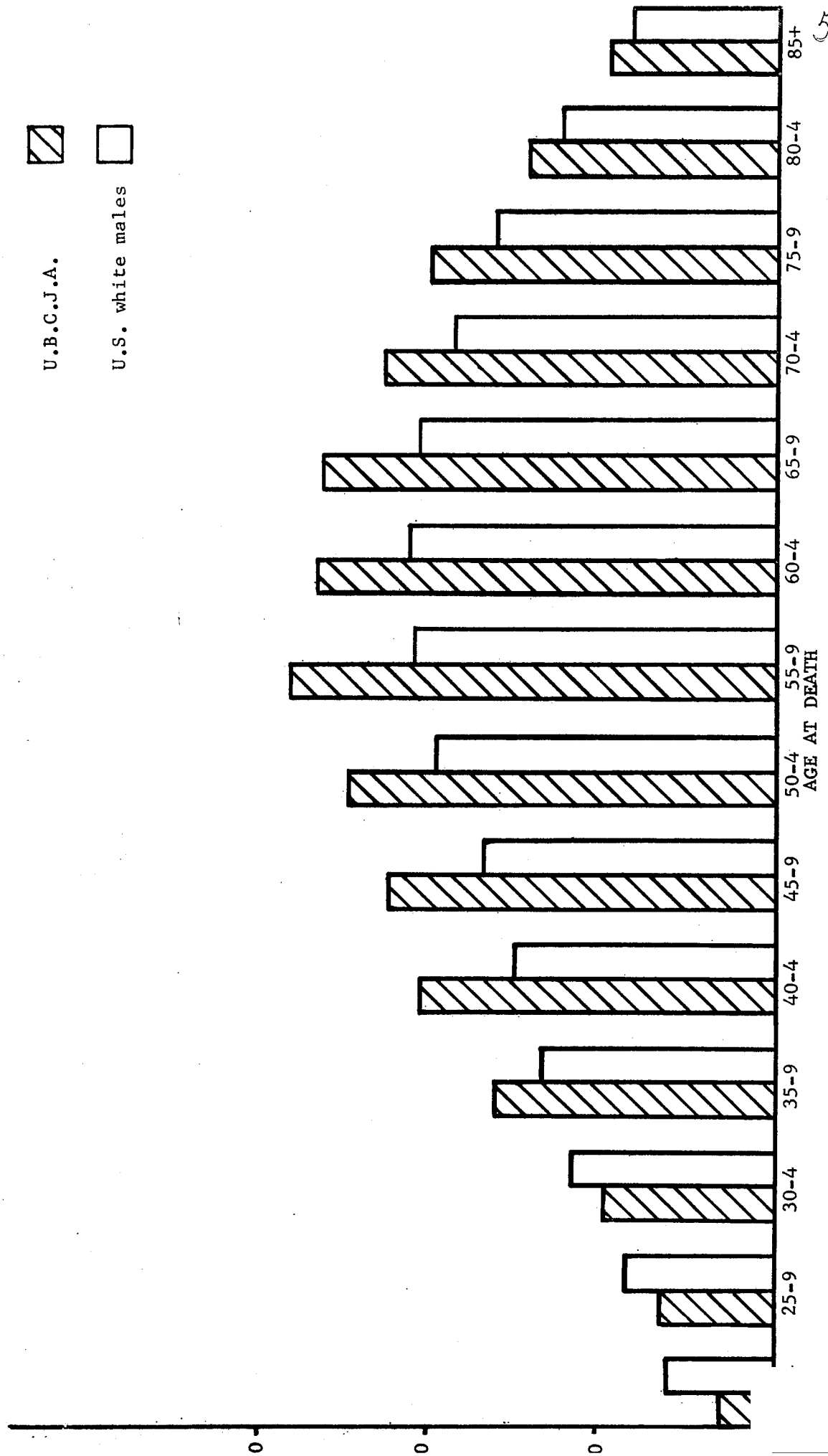
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Table 7- Page 3-C

Standardized Mortality Ratios for Selected Cancers
 AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970
 New York City Locals and Rest of State

Cause of Death	New York City			Rest of New York State		
	Deaths Expected	Deaths Observed	SMR	Deaths Expected	Deaths Observed	SMR
All cancers (140-209)	182.9	233	<u>127.4</u>	170.8	177	103.6
Lung Cancer (162.1)	55.7	66	118.5	50.6	56	<u>111.7</u>
Stomach Cancer (151.9)	10.7	16	149.5	9.4	15	159.6
Cancer of Urinary Bladder (188)	6.9	15	<u>217.4</u>	6.0	3	50.0
Cancer of Colon (153)	18.3	27	<u>147.5</u>	15.8	16	101.3
Leukemia-lymphoma group (200-209)	17.2	25	145.4	16.6	13	78.3
All other cancers	74.1	84	113.0	98.4	103	104.7

Figure 1
Percent of Deaths due to Cancer
AFL-CIO United Brotherhood of Carpenters and Joiners of America, U.S. 1969-1970
U.S. white males, 1968



AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970 deaths
 SMR's by age for all causes and cancer

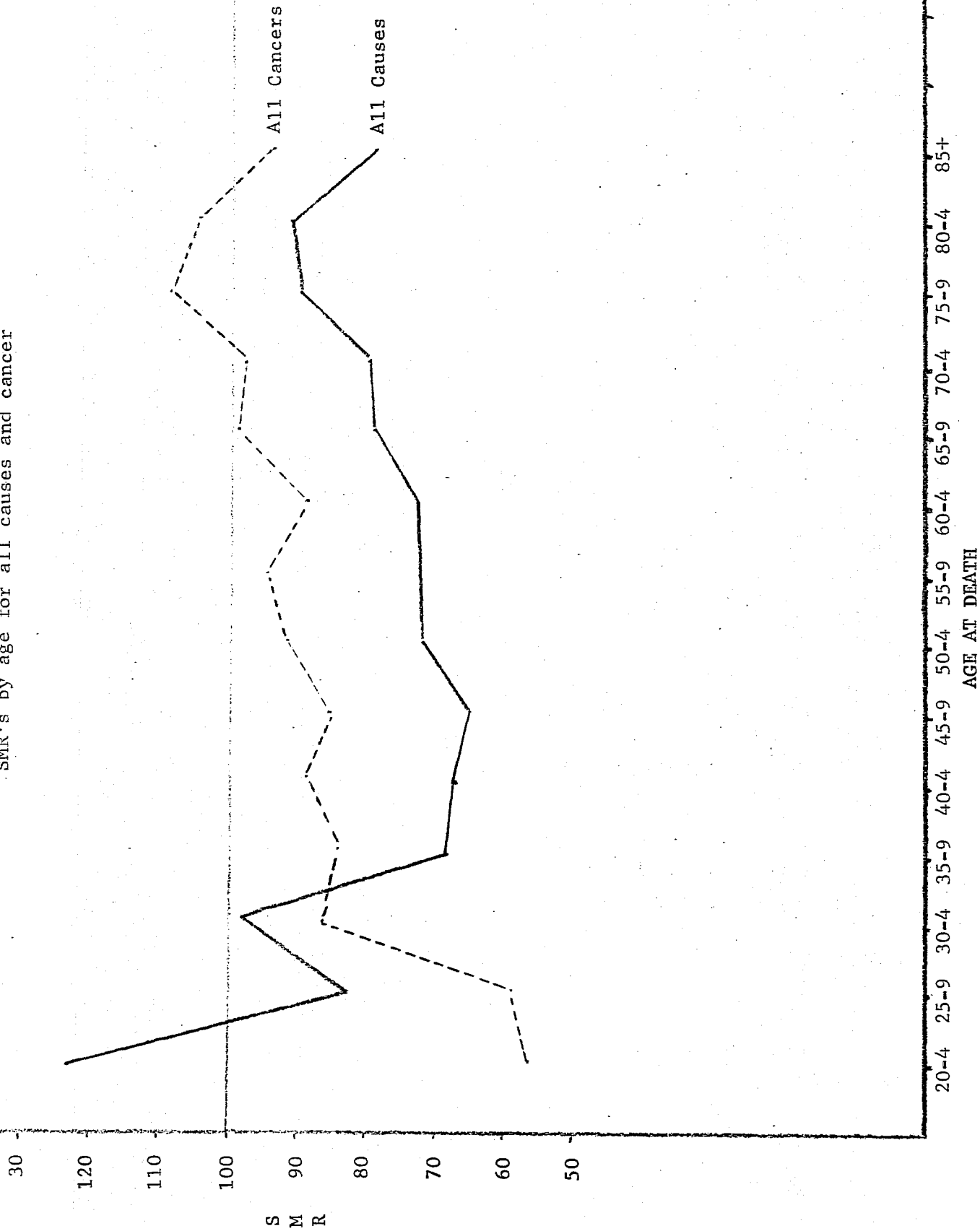
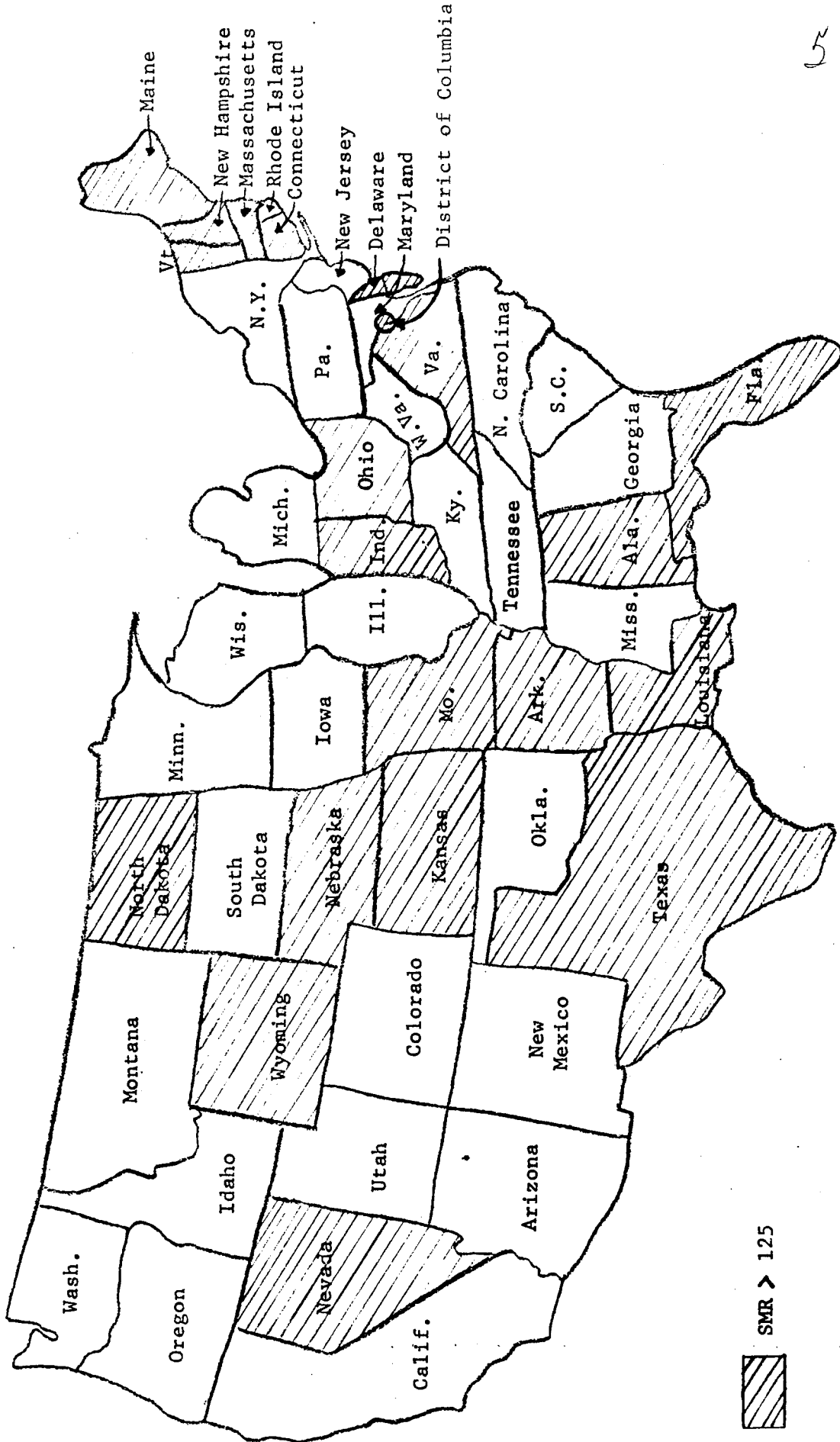


Figure 3
 Lung Cancer Mortality
 AFL-CIO United Brotherhood of Carpenters and Joiners of America, 1969-1970



SMR > 125

SMR < 125

Attachment 1

CARPENTERS UNION MORTALITY

Column:

Claim number	.....	1 - 5	_____	_____	_____	_____
Age	.....	6,7	_____	_____		
Membership Duration	.....	8,9	_____	_____		
Occupation	.....	10-12	_____	_____	_____	
Residence	.....	13,14	_____	_____		
Local number	.....	15-18	_____	_____	_____	_____
Cause of Death:	.....	19-22	_____	_____	_____	_____
	Year.....	23	_____			

- I. (a) _____
- (b) _____
- (c) _____
- II. _____

